



Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Grindstone and Hinkson Creeks

Water Body ID: 1009 and 1008

Water Body Segments at a Glance:

| | |
|---------------------|-----------------------------------|
| County: | Boone |
| Nearby City: | Columbia |
| Length: | |
| Grindstone: | 2.5 miles |
| Hinkson: | 18.8 miles |
| Pollutant: | <i>E. coli</i> bacteria |
| Source: | Runoff from urban and rural areas |



State Map Showing Location of Watershed

Schedule for TMDL development:

TMDL development schedules are subject to change.

The most current schedule for TMDL development is available on the department's website at dnr.mo.gov/env/wpp/tmdl/wpc-tmdl-progress.htm.

Other TMDLs:

In 2011, the U.S. Environmental Protection Agency approved a TMDL to address unknown pollutants in Hinkson Creek. This TMDL and associated documents are available online at dnr.mo.gov/env/wpp/tmdl/1007-1008-hinkson-ck-record.htm.

Description of the Problem

A water body is considered impaired when it fails to meet applicable water quality standards. Water quality standards consist of designated uses, water quality criteria, an antidegradation policy and implementation procedures. Grindstone Creek and Hinkson Creek are impaired due to exceedances of state water quality criteria that protect recreational uses.

Designated uses of Grindstone Creek and Hinkson Creek*

- Warm Water Habitat (WWH)
- Whole Body Contact Recreation Category A (WBC-A)
- Secondary Contact Recreation (SCR)
- Human Health Protection (HHP)
- Irrigation (IRR)
- Livestock and Wildlife Protection (LWP)

*In addition to these specific uses, all waters of the state are protected by the general water quality criteria that are specified in the state's Water Quality Standards at 10 CSR 20-7.031(4).

Uses that are impaired

- Whole Body Contact Recreation Category A (WBC-A)

Criteria that apply

- Missouri's Water Quality Standards at 10 CSR 20-7.031(5)(C) and Table A state that the *E. coli* bacteria count shall not exceed 126 counts per 100 milliliters of water (126 col/100 mL). This count is the geometric mean during the recreational season (April 1- October 31) in waters designated for whole body contact recreation.

Assessment and water quality data

Excessive amounts of *E. coli* bacteria in surface waters is an indication of fecal contamination. *E. coli*, are bacteria found in the intestines of warm blooded animals and are used as indicators of the risk of waterborne disease from pathogenic bacteria or viruses. Infections due to pathogen-contaminated waters include gastrointestinal, respiratory, eye, ear, nose, throat and skin diseases. The department judges a stream impaired by bacteria if the water quality criterion is exceeded in any of the last three years for which there is a minimum of five samples collected during the recreational season. The whole body contact category A criterion was exceeded in Hinkson Creek in 2014. For Grindstone Creek, the criterion was exceeded in 2010 and 2004.

TMDL for Grindstone Creek and Hinkson Creek

The Grindstone Creek and Hinkson Creek TMDLs will calculate the maximum amount of each listed pollutant that the stream can receive and still meet water quality standards. The TMDL will also identify all potential or suspected pollutant sources in the watershed and distribute the allowable pollutant loads among those various sources. When developed, the Grindstone Creek and Hinkson Creek TMDLs will use the most current and available data. For this reason, the final TMDLs may present information that differs from that contained in this information sheet.

For more information call or write:

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Map of the Hinkson Creek Watershed

